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1854

REMARKS *B. Fowler*
with the
ON THE *Compliments*

Author.

MEDICINAL PROPERTIES

2nd cover in front
OF

BAILEY'S SPRING,

LAUDERDALE COUNTY, ALA.,

AND

COOPER'S WELL,

HINDS COUNTY, MISS.

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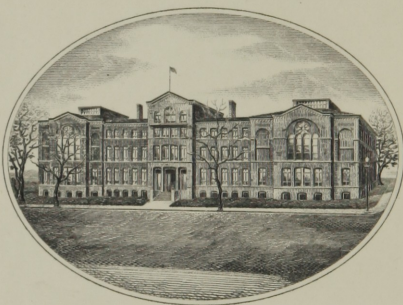
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REMARKS

ON THE

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BAILEY'S SPRING.

This watering place is situated in Lauderdale County, Alabama, fourteen miles from Tuscumbia, nine from Florence, and two and a half from the stage road leading to Nashville. In the year 1822 Mr. JONATHAN BAILEY immigrated to Alabama and purchased the property. It was then a wild forest, and like many adventurous pioneers of the West and South-west, he had to fell the timber and hastily construct, for his family, a rude log cabin. For some time, Mr. Bailey supposed his property possessed no value beyond its agricultural capabilities. Years rolled on, and he devoted his attention to the opening and cultivation of his little farm. His health was good, his wants few; and by industry and economy, he steadily but slowly added to his property. Eleven years ago, his attention was attracted to a small stream of water that emerged from the side of a precipitous hill, and gradually accumulated in a flint basin below. On the surface of this little spring, could be seen, from time to time, a thin scum or pellicle of a dark brown color, which imparted to the touch unctious properties. Some of his neighbors, afflicted with sore eyes, supposed it might be beneficial as an external application, and accordingly commenced the use of it. They were highly gratified at the result. About this time, Mr. Bailey's health, which heretofore had been good, from some cause, became impaired. He was severely afflicted with dyspepsia. The disease assumed a most aggravated and intractable character. In vain did he seek relief, through the skill of the most eminent, approved and popular physicians of his neighborhood.

The disease seemed to have fastened with such power on the system, as to defy the prescriptions of his medical advisers. He grew worse daily, and at length one of the medical gentlemen in attendance advised him to visit a mineral spring some fifty miles distant. But so depressed were his spirits and shattered his constitution, that he recoiled from the idea of leaving his home and family, to take a trip which, though comparatively short, he believed he would be unable to accomplish. At this interview, he casually adverted to his own little spring, informing his physician of the cures it had effected in ophthalmia, and suggested that perchance it might benefit him. The Doctor examined the water and gave him permission to use it,—perhaps more as an experiment to amuse his patient, and to allay, to some extent, his mental disquietude, than from any expectation that it would remove the disease. Doctor and patient were both very soon astounded and delighted with the effect of the water.

For some time Mr. B. had suffered with severe spinal pain, which rendered him restless by day and sleepless by night. Very soon this pain was abated, then ceased. The renal secretion, which had been greatly diminished, was restored to its normal quantity. His appetite improved, he gained strength and flesh rapidly, and in four weeks from the commencement of the use of the water, to the astonishment of his friends, he rode in a carriage to Florence, a distance of nine miles—his cure was soon perfected, and his original good health restored, which, since that time, has been uninterrupted.

The next case was that of a gentleman from Tennessee. He had scrofula, and the water was no less beneficial to him. And now commenced the fame of this spring. His physicians and neighbors spoke of the wonderful effects it had evinced, and the next season, nearly twenty persons, afflicted with a variety of chronic diseases, attended, and most of them were gratified with its effects. It soon attracted the attention of the most eminent physicians of Lauderdale County. They became convinced that it possessed valuable medicinal properties and advised their scrofulous, dyspeptic and dropsical patients to use the water. I

am authorized to state that Drs. Hargroves and Mattingly, of Florence, and Dr. Crittenden, of the vicinity of the spring, entertain a high opinion of the water, as a medical agent in the above mentioned diseases, *viz*: dropsy, scrofula and dyspepsia. Each successive year has added to the reputation of the water, and now this once neglected little fountain, is the resort of rich and poor, young and old, sick and well. Its visitors now hail from various parts of the country—from St. Louis, Mo., Louisville, Ky., Columbus, Miss., Cincinnati, Ohio, &c., and yet the proprietor has made no effort to give it notoriety. Notwithstanding all this, the visitors last year multiplied, beyond his ability to accommodate them.

The water is cool, transparent and almost tasteless. All its ingredients have been so intimately and accurately blended, in Nature's great laboratory, as to make it a most pleasant and agreeable medicine. Again and again have chemists endeavored to imitate mineral waters; but their failures have been signal and numerous. Nor are we surprised at this, when we reflect how great a difference the slightest variation in one or more of the ingredients entering into the compound will produce. Let us take, as an example, atmospheric air and nitric acid: 79 parts of nitrogen, with 21 of oxygen, and a small portion of carbonic acid, constitute atmospheric air. The proportion of nitrogen to oxygen is nearly as 4 to 1; but change this, and 5 of oxygen, with 1 of nitrogen, forms a compound (nitric acid or aqua-fortis,) so corrosive that the metals are dissolved by it.

Analysis of the Water.

We will now proceed to give the Analysis, as it was furnished to us. The qualitative Analysis has been made by Dr. Currey, of Nashville, Tenn., and Mr. Tuomey, of Ala. We copy their own words :

“BAILEY’S SPRING, LAUDERDALE COUNTY, ALA., contains
Carbonic Acid Gas.
Sulphuretted Hydrogen Gas.
Carb. Soda.
Carb. Magnesia.
Oxyd. Iron.
Chloride Sodium, (common salt.)
*Carb. Potash.**

*Dr. Currey, in this analysis, does not mention Iodine, but from a subsequent remark, I presume he discovered traces of it.

NOTE.—The oxyde is combined with a portion of the carbonic acid. It is the carbonic acid gas that causes the sparkling of the water when poured from one glass into another, and produces the lightness and giddiness of the temples when used for the first day or two, and which, for the first three, four or five days, causes a pain in the head. The Iodine is combined with the potash and is valuable as a remedy in scrofula and cutaneous diseases. The carb. potash forms the diuretic salt, which acts so speedily on the kidneys, while the iron and other ingredients render this water so valuable in dyspepsia and weak conditions of the stomach.”

This is Dr. Currey’s Analysis. We will now give that of

Mr. Tuomey, State Geologist of Alabama, and a gentleman of high standing and scientific attainments :

“BAILEY’S SPRING.—This noted spring, like all the mineral springs of Lauderdale County that I have seen, has its origin in cherty rocks, at the base of the carboniferous limestone. The temperature of the water at the time of my examination, was 68° Faht., that of the air being 80°. But Mr. Bailey informs me that it varies, in this respect, with the season, unlike the ordinary springs in the vicinity, which at present, are 8° colder. I regret that I had it not in my power to make a quantitative analysis of this far-famed water. My analysis, however, was conducted with as much care as possible ; yet it is proper to state that under more favorable circumstances, an analysis in which a large quantity of the water could be used, might develop other ingredients, in addition to those given below :

Carbonate Iron.

Carbonate Soda.

Chloride Sodium.

Carb. Potass.—traces.

Sulphur—perhaps in combination with Soda.

The iron is in greater abundance than would appear from the deposit below the outlet of the spring. It is even thrown down slowly during the process of concentration, by boiling. The prominent ingredients are, *carbonic acid, iron and soda.*”

This is all the information we are enabled to give the public, as to the properties of the water. It is much to be regretted that no quantitative analysis has been made, but it is, nevertheless, cheering to the sick to know, that unequivocal proof of its efficacy in scrofula, dyspepsia and dropsy has been given. In the latter disease especially, has it been pre-eminently useful. Indeed the most remarkable and astounding cures of dropsy have been effected by it. Iron, chloride of soda, and potash, in some form or combination, from a very early period, have been prescribed in dyspepsia, dropsy and scrofula. And Iodine, since 1820, when it was introduced into practice by Dr. Coindet of Geneva, up to the present time, has been recommended by every writer of note on glandular diseases.*

*Iodine was discovered by Dr. Usher in the Congress water at Saratoga, and subsequently by Dr. J. H. Steel in the form of Iodide of Sodium.

Iron is indispensable to the formation of rich, healthy blood. It is a metal more universally diffused throughout the organic and inorganic kingdoms, than any other, with which chemistry has made us acquainted. It is one of the twelve chemical elements of man's food. It was known in the most ancient times. Moses speaks of it in Exodus and Deut. It is believed to be the first metal used as medicine, having, according to historical records, been prescribed more than three thousand years ago. The chloride of soda has also had wide-spread reputation in glandular diseases. It, likewise, is an invariable constituent of healthy blood. Under the continued employment of it, glandular enlargements and chronic mucous discharges have disappeared—hence it has been denominated *alterative and resolvent*.

We will now give two cures effected by the water—that of the Rev. Mr. FERGUSON, and the son of Mr. D. R. MONTGOMERY. We give the cases as drawn up by Mr. Ferguson, and the father of Mr. Montgomery:

"TO THE AFFLICTED.

"My son, Lucius Polk Montgomery was attacked with white swelling, or scrofula, in March, A. D. 1848, and after trying many physicians for more than two years, having an opportunity of seeing the most eminent physicians in the United States, and having exhausted their prescriptions upon the stubborn and loathsome disease, and all the prescriptions and remedies proving abortive, the boy growing worse, the disease taking hold on his whole system, until his general health was deranged; he became pale, emaciated and weak. I also tried many nostrumes, poultices and remedies that were disclosed in receipts, but all in vain. At length I heard of Jonathan Bailey's celebrated mineral water. I sent my son to it; he arrived on the 29th day of June A. D. 1851. He remained here until the 27th August following, after which time the use of the water finally eradicated the disease, and all the inflammation that was in his limb. The disease being seated in his right leg in the knee joint and thigh—the water caused all the pus and matter to discharge, and the swelling has finally disappeared. * * * I now consider the boy well of the disease; his general health has been restored—and the two places on his knee nearly healed; but from the violence of the attack and the length of time before he was aided

by any remedy, the *muscles of the leg contracted*, and the knee is bent almost at a right angle. The boy is now ten years old. I consider him cured of the disease. His residence is at Chattanooga, Tennessee.

D. R. MONTGOMERY.

August 27, A. D. 1851.

REV. L. B. FERGUSON'S CASE.

BAILEY'S SPRING, ALABAMA, }

October 2d, A. D. 1851. }

I came to this celebrated spring some three months since, suffering under a disease of the Tibia (supposed to be Necrosis) which during the past three years had frequently prostrated me for months together. One of the severest of my attacks was during the past summer, in which most of the usual remedies had been used without effect. My general health was rapidly giving way, the slightest mental or physical fatigue would often involve me in severe and protracted paroxysms of pain, and my hope of a recovery, short of a doubtful surgical operation, was well nigh gone. I had heard of the remarkable cures of this water. By the permission of an eminent physician and numerous friends, I was induced to make the trial as a last effort for relief short of the knife. I had not remained here a week until a crisis in my disease seemed to arrive. A fistulous ulcer upon the limb was healed and my general health and constitutional vigor returned, and I leave to-day to all appearance restored. Should the cure prove permanent, I shall regard it as affording proof of the efficacy of this water of a most wonderful character; and however this may be, it is but the (office) of justice and candor to say that its effects have been decisive and highly beneficial, and whatever may be the ultimate result in my case, from a careful and scrutinizing observation, in that of others, I have no hesitancy in saying that Bailey's Spring is possessed of medicinal properties of a most positive, peculiar and powerful character. In cases of dropsy, dyspepsia, chronic diarrhea, gravel, scrofula, and all ulcerous and cutaneous affections, its remedial effects are beyond the region of doubt.

Signed,

L. B. FERGUSON,

Nashville, Tenn.

We are informed by Mr. Bailey that Mr. Ferguson paid him a visit within the last year, and that he has entirely regained his health. The reader will perceive that Mr. Ferguson's certificate was given without solicitation on the part of Mr. Bailey; it is a voluntary tribute of commendation, rendered by a good

man, profoundly grateful for benefits conferred; and it is an endorsement of the virtue of the water which deserves the highest consideration. Mr. Ferguson is a citizen of Nashville, a Minister of the gospel, a man of talents, and of exalted character. He had long been a sufferer, and had exhausted, without relief, the skill and resources of the Nashville faculty—men whose fame has not been confined under a bushel, but men of learning and distinction; and what they did not do, the water of Bailey's Spring did. Hence it is very strong corroborative evidence of the valuable medical properties of the water. Cases might be multiplied and piled on each other; but these will suffice for our purpose.

This watering place has natural advantages of no ordinary character. It is susceptible of the highest improvement; and only requires a few touches from the hand of Art, to make it one of the most lovely, fashionable and enchanting watering places in the Southern country. As you approach it from the Nashville road, when you arrive in sight of the buildings you will perceive on your left a lawn carpeted with short grass, of deep verdure. This lawn soon begins to slope, and forms a ravine, which deepens as it descends, and becomes the dividing line of two hills, one on the west, the other on the east. On the latter, are Mr. Bailey's residence, and the cabins; on the western hill is the residence of his son-in-law, Mr. McCabe. A few yards below the head of the ravine, gushing out from the eastern side of the western hill, is a large, bold, cool spring (freestone,) which affords a superabundance of water for culinary and all other domestic purposes. A short distance below the freestone spring, issuing from the same hill, is the Mineral Spring. The water is received into a shallow flint basin, which has been recently surrounded, on three sides, with a limestone wall. A little below the mineral spring, *in winter*, the waters of the two springs unite—(in summer the surplus water of the freestone spring is conveyed off by pipes,) and flow along a bed of flint, for about one hundred and fifty yards, when they tumble over a fall, some fifteen or twenty feet, upon a bed of

mountain limestone. Thirty or forty yards below the fall, the water has worn a channel in the limestone, eight feet deep, by ten wide; thence, by gradual falls, it moves on and disembogues in Shoal creek. The limestone, forming the bed of the little stream, below the excavation, is studded with geodes, which present a beautiful appearance when the sun has passed the meridian, and his slanting rays fall upon the water, and these chrysalized globes of quartz. The falls are shaded by the expanded branches of the stately beach, and as we stood there and listened to the water rushing over the fall, and gazed upon the lofty beach, with its wide spread branches, our thoughts reverted to happy school-boy days, when the lesson for recitation was the first Eclogue in Virgil—

“Tityre, tu patulæ recubans sub tegmine fagi,” &c.

At the fall, a splendid shower bath might be constructed with little outlay, and at the excavation below a bathing pool might be made, with a rock dam, six by fourteen feet—an avenue, cut along the declivity of the hill to these points, would afford a delightful promenade to gentlemen, and would give to all the opportunity of standing below the fall to receive the sparkling drops as they descend, or of bathing in a pool of pure, cool transparent water, according as fancy or inclination prompted to the one or the other.

But these improvements will probably not be made in the life time of the present proprietor. Mr. Bailey has no great fondness for improvement, but he is a kind hearted man. No person can look on him without being impressed with the amiability of his countenance. Indeed, when nature ushered him into the world, she inscribed honesty on his brow. His character is irreproachable—it is as pure and spotless as the transparent water that flows from his spring. He has a tender regard for the feelings of his guests, when they conduct themselves with propriety and decorum; but he knows his own rights, and has the independence to maintain them; and while he scrupulously avoids giving offence to his visitors, he will permit no one, how-

ever strongly fortified by *name*, or *wealth*, or *station*, to infringe his prerogatives. An anecdote illustrative of the old gentleman's character, was related to me on a recent visit to the Spring. At a time when he was greatly crowded by visitors, a gentleman drove up, and shortly thereafter dinner was announced. The new comer called, in an authoritative manner, for a certain article of diet, which the family, in consequence of their numerous sick visitors, could not furnish. They politely informed him of the fact. He was importunate, insisted upon having the article, and evinced temper and dissatisfaction. The old gentleman submitted patiently until dinner was over, and then, in the hearing of his visitor, he said to his son: "James, make out that gentleman's bill, and have his horse in readiness for him to depart." His son obeyed; the visitor remonstrated; but Mr. Bailey was inflexible. Indeed, his determination was as unalterable as the laws of the Medes and Persians. He remarked to the gentleman, that through life he had been opposed to persons remaining together, when it was apparent that they could not do so harmoniously.

Mr. Bailey supplies his table with food, abundant and wholesome; and should disease, or caprice of appetite require something extra, it will be furnished, if sought for in the proper way. If the visitors are respectful and contented, they will receive from the old man, pleasant smiles and kind greetings; but should they presume from the simplicity of his appearance and manners, to treat him with indignity, they will very soon discover that he is a man of spirit and independence, and he will give the offender an unmistakeable hint to leave his premises. No man knows better than Jonathan Bailey, that he is sole proprietor of the spring, and entirely independent of its annual profits. But at watering places, not only the sick but the well assemble. Some of the latter go through necessity or constraint, to give personal attention to sick friends and relatives; others go to escape disease at home, and for pleasure; and the question arises: how can the *well* amuse themselves and spend their time at Bailey's spring? We answer, by reading entertaining and

useful books—they may also take pleasure trips to Florence, nine miles distant—they may visit Mr. Foster's cotton factory, three miles distant, and examine the harmonious action of its complicated machinery, which enables it to receive the raw material, and after having subjected it to various processes, turns out the manufactured article. If they have a taste for geology, they may range the hills and valleys in search of specimens, many of which abound in this region; they may cross Shoal creek and ascend a lofty limestone cliff, and view in it, an excavation, where, many years ago, the rites of sepulture were rendered to one of the red men of the forest. Midway this cliff is a recess in the rock, which twenty years since, attracted the attention of the neighborhood. The entrance of the cavity had been cautiously closed with large rocks. The neighbors removed them, and discovered within the skeleton of a human being, supposed to be that of an Indian. A rude vessel or pot formed of clay and calcined shells, was at his head; on his left side, was an unsprung bow made of the wood of the black locust, a tree that abounds in the surrounding forest; and on the right side, the bone of some huge animal, supposed by those who examined it, to have been the thigh-bone of a bear. How long his remains had reposed in their limestone sepulchre, we are not informed by history or tradition—perhaps, for many, many long years—and probably on the summit of his rock-girt tomb, in days gone by, he had often reclined, and in breathless silence, watched the timid deer, as with cautious and stealthy step, it moved along the vale beneath. But fleeing deer, and mountain tops, and shaded vales, and rippling streams, will know him no more. He is gone, and gone forever,—

“The wind that wrecks the wintry sky,
No more disturbs his long repose,
Than summer evening's gentle sigh
The opening rose.”

Peace, peace to his ashes, until the Arch Angel's trump shall summons earth and sea to render up their dead.

At the foot of this lofty hill, and on its declivity, the Geol-

ogist will find nodules of all sizes, varying from that of a large marble to a nine pounder. On breaking into them, he will find some of the crystals as transparent as glass, and others, with their luster obscured by incrustations of the oxyde of iron. In the mountain limestone he will find myriads of encrinural remains—some resembling St. Cuthbert's beads,* (but we guess it would puzzle the old fellow to string them.)

In the bed of the ravine below the spring will be found limestone, presenting various degrees of consolidation, from soft, green shale, near its mouth, to encrinural marble, so thoroughly intermixed with silicious matter, as to emit sparks when struck by steel. From Shoal creek beautiful shells may be obtained; but if the reader has no taste for, or knowlege of Geology, he may turn his attention occasionally to the Piscatory tribe, (mine host and his son have an abundance of tackle,) but he will sometimes meet with the fate of Dr. Franklin's friend, who got glorious nibbles and no fish. At others, he will be amply rewarded by an abundant supply of large white delicious trout. And lastly, he may visit the canal around the shoals, which will stand for years to come, a monument to the folly of Alabama.

And now in conclusion, the reader will pardon us if we suggest the importance of temperance in eating and drinking, to those who visit the spring for the benefit of the water. We are convinced that many persons use mineral waters too freely, from the supposition, that the larger the quantity, the more certain and speedy will be the cure. This is a great mistake. We think from six to twelve glasses of this water are sufficient for one day, but we have heard of persons going there who consumed from twenty to thirty, as if the human stomach possessed the capacity of retention given to the camels. Others err in diet.

*Separate pieces of the stalks of the encrinite are known in the North of England as St. Cuthbert's beads, from a legend alluded to by Sir Walter Scott in the following lines:

On a rock, by Lindis farne,
St. Cuthbert sits, and toils to frame
The sea-born beads which bear his name.

(See Page's Geology.)

No sooner is the appetite improved, than they lay aside all restraint and eat as if a wager depended on the amount of food consumed. Some people have a very vague and undefined idea of temperance in eating. As an illustration of the fact, we will advert to an anecdote that occurred many years ago, between that eminent but eccentric European physician, Mr. Abernethy, and one of his patients: A gentleman called on Mr. Abernethy to get his medical advice. He entered into a long history of his disease, and related all its particulars. When he concluded, "Perhaps" said the sagacious physician, "you eat too much." The man avowed that he did not. "But," replied Mr. Abernethy, "what do you take for breakfast, and what for dinner, and what for supper?" The patient went on to recount a long list of dishes, undoubtedly showing that his unpleasant sensations resulted from intemperance in eating. "Well," said Mr. Abernethy, "go home and eat less." And to many who visit watering places for health, we would beg leave to say, eat less. A hint to the wise is sufficient.

COOPER'S WELL.

A BRIEF SKETCH OF THE CIRCUMSTANCES CONNECTED WITH THE
DISCOVERY OF THE WELL, THE GEOLOGY OF THE NEIGH-
BORHOOD AND ANALYSIS OF THE WATER, WITH A
FEW HINTS TO INVALIDS,

By S. C. FARRAR, M. D, of Jackson, MI.

Cooper's Well is located in Hinds county, Mississippi, four miles from Raymond, the county seat, and thirteen miles from Jackson, the seat of government. Some years ago, PRESTON W. COOPER, an intelligent Minister of the Methodist Church, purchased the land on which the well is located, with the view of erecting a cottage for the accomodation of himself and family. The little mansion of its former proprietor, was on the side of the hill near the site of the well. Mr. Cooper preferred a settlement on the summit where he could "breathe the fresh air," and have a more commanding view of the surrounding country. For a supply of water it became necessary to construct a cistern or sink a well. He preferred the latter; little, however, did the Rev. gentleman imagine the obstacles that would environ his path, or the extraordinary influences which were ultimately to operate on his mind, cheer him in the pro-

gress of his work, and nerve his spirit for the consummation of a great and noble enterprize. But

“God moves in a mysterious way,
His wonders to perform.”

Mr. Cooper employed a man to dig a well, who after descending thirty feet, struck a rock, (whitish sand stone,) and gave it up in despair. In this unfinished condition it remained for some months afterwards “when a thing was revealed to Mr. Cooper, (vide Job iv. Chapter,) and his ear received a little thereof; when deep sleep falleth on man, a spirit passed before his face, and an image was before his eyes, there was silence, and he heard a voice”—urging him to resume the digging of the well. This image appeared again and again, and finally induced him to resume the work. A second man was employed who had no success, and then a third person, who after penetrating sandstone some thirty feet, abandoned the work as hopeless and unprofitable. For some months it remained in this condition, when Mr. Cooper was again reminded by his unfaltering night-messenger of the importance of proceeding with the enterprize. A fourth laborer was engaged, and after four days assiduous toil with augur, match and mattock, the long-sought for water gushed from a crevice of the rock—water destined not simply to allay the thirst of man, as was that which in ancient times flowed from Horeb’s rock, but Medicinal Water, indued with the property of imparting health and vigor to myriads of human beings. We will give no opinion as to the importance to be attached to dreams, but in justice to Mr. Cooper will remark that he is a gentleman of undoubted veracity. But let us for a moment drop the thread of the narrative, to contemplate the ways and doings of that eternal mind

“Who built the spacious universe,
And decked each part so richly
With what’er pertains to life, to health, to pleasure.

For these three blessings all are striving to maintain, to restore, or to acquire.”

Thus after penetrating earth and rock more than one hundred feet, Mr. Cooper reaped the reward of his anxiety, toil and perseverance. For a time the water acquired but little notoriety beyond the precincts of the neighborhood and county, but ere long it attracted the attention of persons from more distant parts of the State. They came in crowds to this fountain of health. Mr. Cooper considered himself unable and was therefore unwilling to incur the expense of erecting buildings sufficient for the accommodation of all the visitors, and in 1848 sold to his brother-in-law, Mr. Inman Williams (the present landlord, 1852,) one half of the property; and from that date to the present Mr. Williams has expended most of the profits derived from the establishment in the construction of additional buildings, until he is now prepared to accommodate from three to four hundred visitors.

GEOLOGICAL FORMATIONS.

The Geological formations which occur in the neighborhood of the well are tertiary. The well is surrounded in every direction except the North-west, by precipitous hills, which are covered with gravel, intermixed with jasper, chert, agates and faversites; and large masses of consolidated conglomerate may be

seen on the hill South of the well. A whitish sandstone, *occasionally* deeply tinged with oxide of iron, outcrops on all the hills. On examining an excavation made a few feet above the well, for a bath house, we find the surface of the earth strewn with pebbles and pieces of conglomerate; below is a yellow ferruginous clay, then aluminous earth intermixed with sandstone, compact, but not sufficiently hard to resist the action of the mattock, and lastly the more compact sandstone. The adjacent hills are clothed with oak, hickory and majestic pines. A few miles from the well are the Mississippi Springs, a cool and pleasant retreat for invalids. The water is strongly impregnated with sulphur. In the immediate vicinity of the springs is a valuable quarry of limestone belonging to Mr. Marshall. It affords excellent rock for building, and the lime derived from it is said by the dealers in Jackson to be of excellent quality. From this quarry, Bitumen, Ichthyolites, the Spatangus, and various marine shells have been obtained, and it is daily disgorging treasures of deep interest to the Naturalist and Geologist.

ANALYSIS OF THE WATER.

BY DR. J. LAWRENCE SMITH,

Professor of Chemistry in the University of Louisiana.

“The water, which forms the subject of this Report, has enjoyed a high reputation for Medical virtues during several years past; being more especially beneficial in chronic diseases of the intestines.

In the month of December, 1851, I was requested to make a chemical examination of the water, and to collect it myself at the source, so that the examination contained in this report was made partly at the source.

The water is derived from a well dug to the depth of 107 feet, in a solid sandstone rock—in some parts, a consolidated conglomerate overlying and mixed with the sandstone. At the

surface the rock is soft, but becomes quite hard at a depth beyond the reach of atmospheric action.

The depth of the water in the well seldom exceeds five feet, and it is said to flow in at the bottom from three different sources, the waters of which differ from each other, so that it will be well at some future time to examine the character of each of these waters, collecting them when the well is dry, by means of a sponge.

TEMPERATURE.—60° Fahr., the air being at 50°.

TASTE—Little or none, although it is said most commonly to have a marked odor of sulphuretted Hydrogen—the quantity, however, must be very small.

COLOR—Transparent, with small yellow flakes floating on it.

SPECIFIC GRAVITY—1,00147.

GAS CONTAINED IN ONE WINE GALLON.

Cubic inches—Oxygen.....	1,5
“ “ Nitrogen.....	4,5
“ “ Carbonic Acid.....	4,0

SOLID CONTENTS OF ONE GALLON ARE 105 GRAINS, AS FOLLOWS:

Sulphate of Soda.....	11,705
Sulphate of Magnesia.....	23,280
Sulphate of Lime.....	42,122
Sulphate of Potash.....	9,608
Sulphate of Alumina.....	0,120
Chloride of Sodium.....	8,360
Chloride of Calcium.....	4,322
Chloride of Magnesium.....	3,480
Peroxide of Iron.....	3,362
Crenate of Lime.....	0,311
Silicia.....	1,801

105,471

THE DEPOSIT WHICH COLLECTS IN CONCENTRATING THE WATER CONTAINS IN 100 GRAINS:

Water, grains.....	38
Crenate of Lime, grains.....	2
Sulphate of Lime, “.....	25
Peroxide of Iron, “.....	35

The iron in the water was found altogether in the yellow part which floats about, although it is more than probable that at certain seasons of the year it must also be found in the clear water.

The water when kept loses none of its properties, as has been found by strict analysis; and at all times, when the effects of the iron are sought for, the sediment should be taken along with the water.”

From the foregoing analysis it will be perceived that the water is adapted to the treatment of a variety of diseases, especially debility of the digestive organs, dyspepsia, chronic diarrhea, some cases of dropsy, renal affections, scrofula, gout and rheumatism. The water is aperient, cathartic, diuretic, and tonic, according to the quantity used. In chronic diarrhea of a functional character, uncomplicated with pulmonary disease, it has achieved wonders, and hundreds of persons can testify to its unrivalled success. The reputation of the water is no longer confined to narrow limits; last year Kentucky, Tennessee, Arkansas, Alabama, Georgia, South Carolina and Louisiana sent forth their sick to *drink and be healed*.

We come now to the primary object had in view in writing this paper, viz: A few plain directions for the use and government of persons seeking relief from the water. Some invalids go to the well, and depart, little if at all benefitted. Nay, sometimes with their symptoms aggravated, because of the use of food to satiety. One patient goes there with constipated bowels, functional derangement of the liver, &c., and uses the water freely, it acts as a cathartic, stimulates the liver, renders its functions normal, and his health is speedily restored. Another laboring under dyspepsia, with debilitated digestive organs, a sad countenance, almost bloodless face, appetite capricious (his food running into the acetous fermentation,) uses the water frequently and freely, it acts quickly on the bowels, he loses strength, the small amount of chyle eliminated by his imperfect digestion is purged off, no time is allowed between his frequent potations of water for its absorption, his flesh wastes, his cheeks are pallid, his despondence is increased, he becomes restless and leaves for home in disgust; but had this patient pursued a different course, commencing on his arrival at the well with a simple and restricted regimen, taking food of easy digestion, and half an hour after each repast, from a gill, to a gill and a half of water, (enough for an alterative and tonic,) the saline constituents of the water would, in all probability, have prevented the

acetious fermentation of his food, the iron would have stimulated gently the stomach, been incorporated with the chyle, and given him richer and healthier blood, and with elastic step, and buoyant spirits and renovated health, he would have departed for home a eulogist of Cooper's Well.

We will now take a case of chronic diarrhea. The patient is emaciated, has perhaps a dozen evacuations in the day, his tongue is red, with sore edges, his appetite good, (and he indulges it freely,) his gait is slow and hobbling, evincing excessive muscular debility, and yet this person, without advice and without stint, uses the water; he drinks from two to six glasses per day, it acts as a cathartic, increases the irritation of the bowels, and in a few days in utter despair of recovery, he returns home, with all the symptoms of his disease aggravated. Whereas, if he had controlled his appetite, taken the water at stated intervals, and in moderate quantities, a very different result would have been perceived. We would therefore respectfully advise invalids wishing to obtain the cathartic effect of the water to abstain from it as a common drink, and take at bed time, after an early and light supper, from two to three glasses, and early in the morning, (at the well if the person can walk there,) the same quantity, then exercise for half an hour on foot, or if too feeble for this, on horse back or in some vehicle.

The old poet clearly understood the influence of exercise on mind and body, when he composed the following lines:

"To cure the mind's bold biased spleen
Some recommend the bowling green,
Some hilly groves—all Exercise—
Fling but a stone, the giant dies."

When the water is used for its diuretic properties from one to two tumblers full should be drank three times a day. In debility of the digestive organs, chronic diarrhea, and scrofula, we recommend it in small portions, half an hour after meals, say from a gill to a half pint. This mode of using it will more certainly secure its alterative and tonic effects. It is the opin-

ion of some eminent physicians that chalybeates* taken a short time after meals mingle with the food, and are readily absorbed and carried into the general circulation.

“Steel medicines do good by improving the quality of the blood, rather than by their immediate action on the coats of the stomach, and are best given at meal times. They are then mixed with the food, and gradually absorbed with the products of digestion, and are less apt to offend the stomach, and to cause headache, than at other times.

[George Budd, M.D., F.R.S., *Sec London Lancet*, July, 1854.

Under proper restrictions, this water is invaluable in chronic diarrhea unconnected with extensive intestinal lesions, and our advice to every person affected with it, is to try the water *before he despairs of recovery*.

The accommodations at the well are very good and will be annually smproved.³ Should this communication be the means of imparting health to a single afflicted human being, the writer will be amply remunerated for the time spent in penning it.

NOTE.—The above essay was written in May 1852. Since then the property has changed hands, Mr. Cooper having sold his interest to a company. Mr. Williams retains a share of the property. Numerous improvements have been recently added for the comfort and accomodation of visitors, and Mr. Williams, aided by the *prince of hotel keepers*, Genl. McMakin, is now prepared to receive and accomodate five hundred visitors. Dr. Pugh, one of the proprietors, a courteous gentleman and physician of ripe experience, resides at the well, and to him invalids are referred for more special and extended directions as to regimen and the use of the water than the limits of this paper will permit me to give.

*Dr. Meigs, of Philadelphia, advocates this mode of exhibiting ferruginous preparations, from his own experience and that of M. Raceboski.

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